

WHAT IS CLAIMED IS:

1. A process for preparing a glass fiber mat, the process comprising: (a) forming a wet glass fiber mat; (b) applying to the wet glass fiber mat a binding
5 amount of a binder comprising: a urea formaldehyde resin, 0.5-15% by weight of a latex, based on the dry weight of the urea formaldehyde resin and the latex, and 0.5-15% by weight, based on the dry weight of the latex solids, of a salt or free acid of an anionic organic
10 phosphate ester surfactant; and (c) curing the binder.

2. The process of Claim 1 wherein the latex is a carboxylated styrene butadiene latex.

3. The process of Claim 1 wherein the surfactant has an aliphatic hydrophobe.

15 4. The process of Claim 1 wherein the amount of surfactant is from 0.75 to 10 weight percent.

5. The process of Claim 1 wherein the amount of surfactant is from 1 to 5 weight percent.

20 6. The process of Claim 1 wherein the surfactant has a polyethyleneoxy chain of from 3 to 15 units.

7. The process of Claim 1 wherein the surfactant has a polyethyleneoxy chain of from 4 to 12 units.

25 8. The process of Claim 1 wherein the surfactant has a polyethyleneoxy chain of from 5 to 10 units.

9. The process of Claim 8 wherein the latex is a carboxylated styrene butadiene latex, and the amount
30 of surfactant is from 1 to 5 weight percent.

10. The process of Claim 9 wherein the amount of latex is from about 5 to about 12 weight percent.

11. The process of Claim 1 wherein the emulsion polymer contains phosphorus in its polymer molecule as 0.1 to 10% by weight of the polymerized residue of an anionic phosphate group-containing monomer, or from 0.1 to 2 weight percent of the polymerized residue of a perphosphate initiator, or a combination of these, based on the solids of the emulsion polymer.

12. The process of Claim 1 wherein step (a) comprises dispersing glass fibers in an aqueous medium containing polyacrylamide to form a slurry, and depositing the slurry onto a screen to form a wet glass fiber mat.

13. A glass mat prepared by the process of Claim 1.

14. A binder composition comprising: (a) a urea formaldehyde resin; (b) 0.5-15% by weight of an emulsion polymer, based on the dry weight of the urea formaldehyde resin and the emulsion polymer, the emulsion polymer containing phosphorus in its polymer molecule as 0.1 to 10% by weight of the polymerized residue of an anionic phosphate group-containing monomer, or from 0.1 to 2 weight percent of the polymerized residue of a perphosphate initiator, or a combination of these, based on the solids of the emulsion polymer; and (c) optionally 0.5-15% by weight, based on the dry weight of the emulsion polymer solids, of a salt or free acid of an organic phosphate ester surfactant.

15. The binder of Claim 14 wherein the amount of phosphate monomer residue is from 0.5 to 7.5 weight percent of the emulsion polymer.

16. The binder of Claim 14 wherein the amount of perphosphate initiator residue is from 0.5 to 1 weight percent of the emulsion polymer.

17. The binder of Claim 15 wherein the latex is a carboxylated styrene butadiene latex.

18. A binder composition comprising: a urea formaldehyde resin and 0.5-15% by weight of an emulsion polymer, based on the dry weight of the urea formaldehyde resin and the emulsion polymer, and 0.5-15% by weight, based on the dry weight of the emulsion polymer solids, of a salt or free acid of an anionic organic phosphate ester surfactant.

19. The binder of Claim 18 wherein the amount of latex is from 3 to 12 percent, and the amount of surfactant is from 0.75 to 10 weight percent.

20. The binder of Claim 19 wherein the surfactant has a polyethyleneoxy chain of from 3 to 15 units.